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IS 7061 (1973): Specification for Calcined Bone Meal as Livestock Feed Supplement [FAD 5: Livestock Feeds, Equipment and Systems]



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“Knowledge is such a treasure which cannot be stolen”

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IS : 7061 - 1973
(Reaffirmed 1995)

Indian Standard

**SPECIFICATION FOR
CALCINED BONE MEAL AS
LIVESTOCK FEED SUPPLEMENT**

(First Reprint MAY 1998)

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**BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002**

**AMENDMENT NO. 2 DECEMBER 1999
TO
IS 7061 : 1973 SPECIFICATION FOR CALCINED
BONE MEAL AS LIVESTOCK FEED SUPPLEMENT**

(*Cover page and page 1, Title*) — Substitute the following for the existing title:

**‘SPECIFICATION FOR CALCINED BONE MEAL AS
POULTRY FEED SUPPLEMENT’**

(FAD 5)

Reprography Unit, BIS, New Delhi, India

AMENDMENT NO. 1 AUGUST 1996
TO
IS 7061 : 1973 SPECIFICATION FOR CALCINED BONE
MEAL AS LIVESTOCK FEED SUPPLEMENT

(*Page 4, clause 2.1, line 4*) — Substitute 'IS 460 (Part 1) : 1985*' for 'IS : 460 - 1962*'.
(*Page 4, foot-note with ' * ' mark*) — Substitute 'Specification for test sieves : Part 1 Wire cloth test sieves (*third revision*)' for the existing title.

(*Page 5, clause 5.2, line 2*) — Substitute 'IS 1070 : 1992†' for 'IS : 1070 - 1960†'

(*Page 5, foot-note with ' † ' mark*) — Substitute 'Reagent grade water (*third revision*)' for the existing title.

(FAD 5)

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Indian Standard

SPECIFICATION FOR CALCINED BONE MEAL AS LIVESTOCK FEED SUPPLEMENT

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Indian Standard

SPECIFICATION FOR CALCINED BONE MEAL AS LIVESTOCK FEED SUPPLEMENT

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 7 November 1973, after the draft finalized by the Animal Feeds Sectional Committee had been approved by the Agricultural and Food Products Division Council.

0.2 Calcined bone meal is the trade name for bone ash. It is rich in calcium and phosphorus minerals and, therefore, has value as a mineral supplement in livestock feeds and it is being largely used in commercial mineral mixtures for supplementing cattle feeds, poultry feeds, etc. Calcined bone meal chiefly consists of tribasic calcium phosphate and also some proportion of calcium carbonate.

0.3 In the preparation of calcined bone meal, the bones collected from carcasses of animals and from slaughter houses are dried in the sun and then burnt either in kilns or in open stacks. For burning in stacks, normally kerosine is used. In addition, the fat in the bones also aids in the burning. The resulting burnt bones are free from fat, proteinous and all organic matter, and are free from odour. The burning process also destroys all carcass-borne (pathogenic) organisms. The bones after burning are cooled and then ground to fine powder, usually after an intermediate coarse grinding. In the selection of bones for burning, jaw bones should be excluded as they generally have high fluorine content. Their presence, therefore, will result in high fluorine levels in end product, which would be deleterious to animal health.

0.4 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Rules for rounding off numerical values (*revised*).

1. SCOPE

1.1 This standard prescribes the requirements and the methods of sampling and test for calcined bone meal used as a mineral supplement in livestock feeding.

2. REQUIREMENTS

2.1 **Description** — Calcined bone meal shall be pale-buff or off-white or nearly-white in colour and the particle size shall be such that not less than 90 percent by mass of the material passes through 106-micron IS Sieve (*see* IS : 460-1962*).

2.2 Calcined bone meal shall also conform to the requirements prescribed in Table 1.

TABLE 1 REQUIREMENTS FOR CALCINED BONE MEAL AS
LIVESTOCK FEED SUPPLEMENT

Sr. No.	CHARACTERISTIC	REQUIREMENT	METHOD OF TEST (REF TO APPENDIX OF IS : 1942-1968*)
(1)	(2)	(3)	(4)
i)	Moisture, percent by mass, <i>Max</i>	0.5	A
ii)	Calcium, percent by mass, <i>Min</i>	37	B
iii)	Phosphorus, percent by mass, <i>Min</i>	16	C
iv)	Fluorine, percent by mass, <i>Max</i>	0.05	G
v)	Acid insoluble ash, percent by mass, <i>Max</i>	3.0	F

NOTE — The values specified for requirements (ii) to (v) are on moisture-free basis.

*Specification for bone meal as livestock feed supplement (*first revision*).

3. PACKING AND MARKING

3.1 **Packing** — Calcined bone meal shall be packed in moistureproof bags or in any other suitable container. The containers used shall be sound, clean and free from causal agents of infectious diseases and parasites.

*Specification for test sieves (*revised*).

3.2 Marking — Each container shall be suitably marked or labelled to give the following information:

- a) Name of the material,
- b) Name of the manufacturer,
- c) Batch or code number,
- d) Net mass, and
- e) Guaranteed analysis.

3.2.1 Each container may also be marked with the Standard Mark.

3.3 The use of the Standard Mark is governed by the provisions of *Bureau of Indian Standards Act, 1986* and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

4. SAMPLING

4.1 Representative samples of the material for testing conformity to this specification shall be drawn according to the method prescribed in Appendix J of IS : 1942-1968*.

5. TESTS AND CRITERION FOR CONFORMITY

5.1 Tests shall be carried out as prescribed in the relevant appendices specified in col 4 of Table 1.

5.2 Quality of Reagents — Unless specified otherwise, pure chemicals and distilled water (*see* IS : 1070-1960†) shall be employed in all tests.

NOTE — 'Pure chemicals' shall mean chemicals that do not contain impurities which affect the test results.

5.3 Criterion for Conformity

5.3.1 A lot shall be considered as conforming to the specification, when:

- a) each of the test results for phosphorus satisfies the requirements as specified in Table 1, and
- b) the test results on the composite sample satisfy the other requirements as specified in Table 1.

*Specification for bone meal as livestock feed supplement (*first revision*).

†Specification for water, distilled quality (*revised*).

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5.3.2 If one or more test results do not satisfy the requirements for phosphorus, the following procedure shall be adopted for determining conformity of the material for phosphorus:

Calculate the mean and range of the test results as follows:

$$\text{Mean (} \bar{X} \text{)} = \frac{\text{Sum of the test results}}{\text{Number of the test samples}}$$

$$\text{Range (} R \text{)} = \text{Difference between the maximum and the minimum values of the test results}$$

If $\bar{X} - 0.4 R$ is greater than or equal to 16, the lot shall be considered as conforming to the specification in regard to phosphorus.

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